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(56) Documents Cited

GB 2238749 A

GB 1254535 A EP 0211135 A2

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(58) Field of Search

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(54) Jig for locks

(57) A jig for assisting the fitting of a mortice lock into a door is a U-shaped member which is positioned to embrace the free vertical edge of the door. Its limbs 2 have apertures 5, 6, 7 which define where the latch spindle and the keyhole are to be, a selection being available according to whether the lock is long or short reach. The web 1 of the jig, which lies against the door edge, has apertures 3 for drilling screw holes for the face plate of the lock, and which can also be used for holding the jig in place while other holes are drilled or cut. Between these holes 3 there is a slot 4 for guiding the cutting of the mortice.

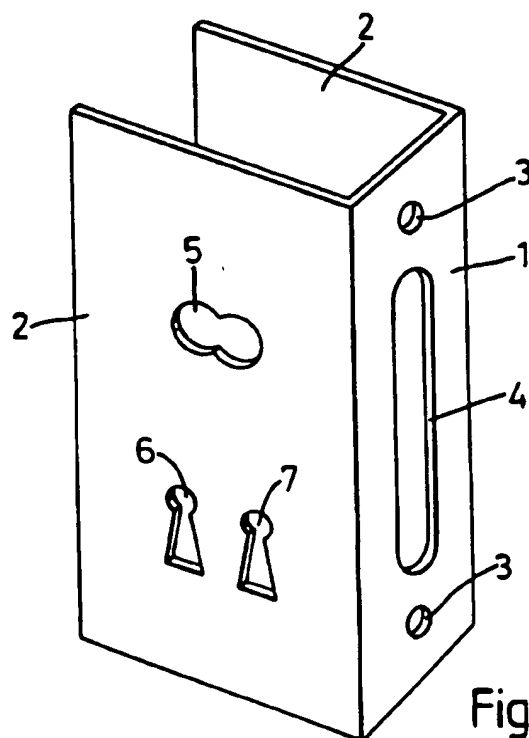


Fig. 1

1/1

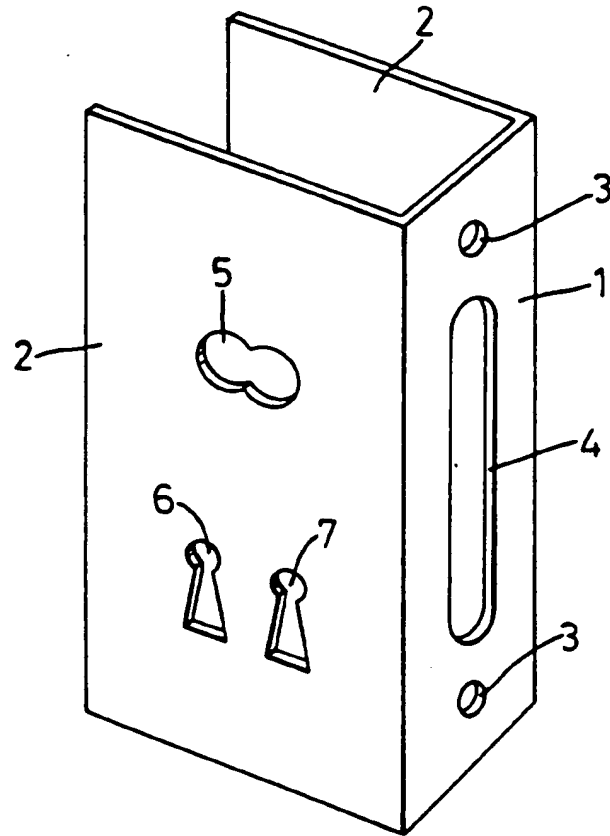


Fig. 1

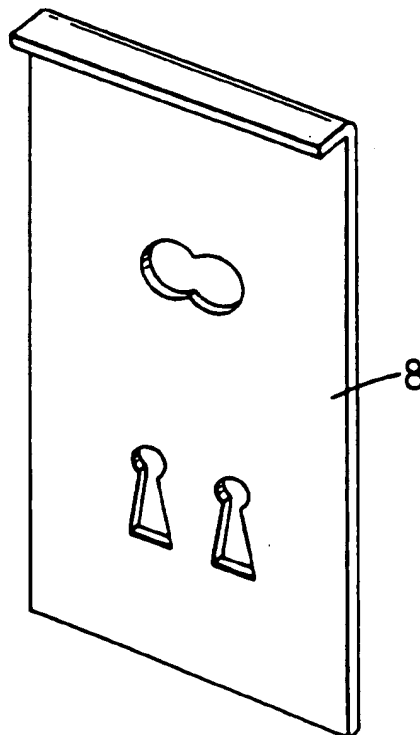


Fig. 2

"A Jig for Locks"

This invention relates to a jig for locks. It will be described in terms of mortice locks having both a spring-loaded latch operable by a door handle via a spindle and a
5 deadlock operable by a key. However, it will be understood that it could be applied to jigs where just a spindle hole is required, or where only a keyhole is necessary.

Conventionally, the spindle and keyholes in a door are marked out by measurement and then drilled and cut. However,
10 this is a time-consuming and tricky operation, quite easy to get wrong.

It is the aim of this invention to provide means for simplifying and speeding up that task.

According to one aspect of the present invention there
15 is provided a jig for assisting the fitting of a mortice lock into a door, the jig comprising a U-shaped member for embracing the free vertical edge of a door, the two side limbs being apertured to expose areas of the door where spindle and keyhole are to be drilled and cut.

20 At the present time there are two standard sizes of mortice lock, known as "long reach" and "short reach" locks. Vertically and transversely they are dimensionally similar, but in the long reach locks the spindle and keyholes are further from the face plate that is set flush with the
25 narrow free edge of the door.

Preferably, the jig will cater for both types of lock, with two keyhole apertures on each limb and a figure-of-eight aperture, set horizontally, on each limb. The two

spindle positions are too close to have two separate apertures.

Such a lock is secured to the door by screws through the top and bottom of the face plate, which extends vertically beyond the main casing that houses the locking mechanism and bolts. Preferably, the web of the jig, between the two limbs, also has screw holes with the same spacing as those on the face plate. They will bear the same spaced relationship to the holes in the limbs as the screw holes have with the spindle and keyholes in the main casing. The jig can then be temporarily fixed using the screw holes drilled in the door, and this will ensure that the spindle and keyholes will be made at the correct height as well as the correct distance from the door edge.

The web of the jig may also have an elongate slot between the screw holes corresponding to the cross section of the main casing. The jig may then be secured to the door and the main mortice drilled and cut out using this slot as a guide.

The limbs of the jig will be spaced to embrace the thickest standard door. When used on thinner doors, by using the screw holes as described above (which will be central of the door thickness) the limbs will have equal clearance on either side. This will not be large enough to give rise to any significant errors when drilling or cutting through the holes. But spacer means could be provided for centering the jig in relation to a door thinner than the distance between the side limbs.

It is envisaged that the jig may be formed in one operation as a unitary member in plastics or metal.

According to another aspect of the invention there is provided a method of fitting a mortice lock into a door
5 wherein a jig as defined above is positioned embracing the free vertical edge of the door and holes are cut and/or drilled, guided by the apertures in the jig.

For a better understanding of the invention, one embodiment will now be described, by way of example, with
10 reference to the accompanying drawing, in which:

Figure 1 is a perspective view of a jig for assisting the fitting of mortice locks, and

Figure 2 is a perspective view of a spacer that may be used in conjunction with such a jig.

15 The jig is of squared U-section with an elongate rectangular web 1 that will lie against the vertical edge of a door and two parallel limbs 2 that will embrace the stile. Near the top and bottom the web 1 has apertures 3 that guide a drill for screw holes. They can also be used for holding
20 the jig in place while other holes are cut or drilled, temporary screws being entered through them. Between these apertures 3 there is an elongate slot 4, which defines the mortice to be cut.

Each limb 2 has a figure-of-eight aperture 5, set
25 horizontally, one or other part of which is used to guide a drill forming the passage for a latch spindle, according to whether the mortice lock is "long reach" or "short reach". Below this, there are two keyhole apertures 6 and 7, again

giving a guide for both "long reach" and "short reach" locks. It will be understood that the apertures 5, 6 and 7 in the far limb 2 which is largely concealed in Figure 1 will be horizontally directly opposite the corresponding apertures in the near limb 2.

The spacing of the limbs 2 will be such that they will closely fit either side of the thickest standard door. When used on thinner doors, the jig may be centred using the apertures 3, ensuring that the holes drilled through them are central of the door edge. This leaves the limbs free, and while the gaps between them and the stile will be small, it may be preferred to support them by using spacers such as the plate 8 shown in Figure 2. Two such plates simply hook over the upper edges of the limbs 2 and can act as centering means. Although shown with apertures corresponding to 5, 6 and 7, they could have much larger apertures.

CLAIMS

1. A jig for assisting the fitting of a mortice lock into a door, the jig comprising a U-shaped member for embracing the free vertical edge of the door, the two side
5 limbs being apertured to expose areas of the door where spindle and keyhole are to be cut.

2. A jig as claimed in Claim 1, wherein the jig has two keyhole apertures in each limb and a figure-of-eight aperture, set horizontally in each limb to cater for "long
10 reach" and "short reach" locks.

3. A jig as claimed in Claim 1 or 2, wherein the web of the jig, between the two limbs, has apertures for guiding the drilling of holes for screws that secure the face plate of a mortice lock.

15 4. A jig as claimed in Claim 1, 2 or 3, wherein the web of the jig, between the two limbs, has an elongate slot for guiding the cutting out of the mortice to receive the casing of the lock.

5. A jig as claimed in any preceding claim, and
20 further comprising spacer means for centering the jig in relation to a door thinner than the distance between the side limbs.

6. A jig substantially as hereinbefore described with reference to Figure 1, with or without Figure 2 of the
25 accompanying drawing.

7. A method of fitting a mortice lock into a door, wherein a jig as claimed in any preceding claim is positioned embracing the free vertical edge of the door and

holes are cut and/or drilled, guided by the apertures in the jig.

8. A method as claimed in Claim 7 as appendant to Claim 3, wherein the jig is temporarily fastened to the door
5 using the screw holes in the web.

9. A method of fitting a mortice lock into a door substantially as hereinbefore described with reference to Figure 1 with or without Figure 2 of the accompanying drawing.



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Claims searched: 1-9

Examiner: Vaughan Phillips
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Patents Act 1977 Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.O): B3C

Int Cl (Ed.6): B23B

Other: Online: WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 2238749 A (GUMBRELL) see Figs. 4, 5 and page 7 line 3 & ff.	1, 7 at least
X	GB 1254535 (EMHART) see e.g. Figs. 1, 4	1, 7 at least
X	EP 0211135 A2 (SCHEDEL) see Fig. 1	1, 7 at least
X	WO 88/10177 A1 (PETHERICK) see Fig. 1	1, 7 at least

X	Document indicating lack of novelty or inventive step	A	Document indicating technological background and/or state of the art.
Y	Document indicating lack of inventive step if combined with one or more other documents of same category.	P	Document published on or after the declared priority date but before the filing date of this invention.
&	Member of the same patent family	E	Patent document published on or after, but with priority date earlier than, the filing date of this application.